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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking on the)	
Commission's Own Motion into the Service)	Rulemaking 02-12-004
Quality Standards for All Telecommunications)	(Filed December 5, 2002)
Carriers and Revisions to General Order 133-B)	
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**REPLY DECLARATION OF DR. DEBRA J. ARON SUPPORTING COMMENTS OF
VERIZON CALIFORNIA INC. (U 1002 C)**

June 15, 2007

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Pursuant to the March 30, 2007 Assigned Commissioner's Ruling and Scoping Memo, Verizon California Inc., on behalf of itself and its certificated California affiliates (collectively "Verizon"), submits this reply declaration of Debra J. Aron in support of its Reply Comments.

I, Debra J. Aron, declare that:

I. Introduction

1. I am the same Debra J. Aron that submitted a declaration in this proceeding on May 14, 2007.¹
2. In the opening comments, filed May 14, 2007, there is substantive agreement among service providers that monitoring requirements and standards are not necessary to ensure the supply of reasonable service quality.² In light of the

¹ Declaration of Dr. Debra J. Aron Supporting Opening Comments of Verizon California Inc. and Its Certificated California Affiliates, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, (hereafter *Aron Opening Declaration*).

² Opening Comments of Pacific Bell Telephone Company D/B/A AT&T California (U 1001 C) and Certain Affiliates Providing Telecommunications Services in California in Response to March 20, 2007 Assigned Commissioner's Ruling and Scoping Memo, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, pp. 1-3; Opening Comments of Cbeyond Communications LLC (U 646 C), *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, p. 1; Comments of CTIA—The Wireless Association on Scoping Memo Issues, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, (hereafter *CTIA Opening Comments*), p. 2; Comments of Citizens Telecommunications Company of California Inc., D/B/A Frontier Communications of California, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*,

Commission's findings in its URF Phase 1 decision, and the Commission's policy objective and obligation under California law to rely on competition wherever possible to promote consumer welfare, there is a consensus among medium and large incumbent local exchange carriers (ILECs),³ and the providers against whom they compete,⁴ that the Commission should forbear from imposing service quality regulations. The market mechanism in competitive markets is generally superior to regulation to determine and provide the service quality options that consumers value. Superimposing regulation of service quality on providers in a

before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, p. 2; Comments of Joint Commenting Parties in Response to Assigned Commissioner's Ruling and Scoping Memo, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, pp. 2-3; Opening Comments of Calaveras Telephone Company (U 1004 C), Cal-Ore Telephone Co. (U 1006 C), Ducor Telephone Company (U 1007 C), Global Valley Networks, Inc. (U 1008 C), Foresthill Telephone Co. (U 1009 C), Happy Valley Telephone Company (U 1010 C), Hornitos Telephone Company (U 1011 C), Kerman Telephone Company (U 1012 C), Pinnacles Telephone Co. (U 1013 C), The Ponderosa Telephone Co. (U 1014 C), Sierra Telephone Company, Inc. (U 1016 C), The Siskiyou Telephone Company (U 1017 C), The Volcano Telephone Company (U 1019 C), Winterhaven Telephone Company (U 1021 C), Regarding Assigned Commissioner's Ruling And Scoping Memo Dated March 30, 2007, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, (hereafter *Small LECs Opening Comments*), pp. 1-2; Opening Comments of SureWest Telephone (U 1015 C) on Assigned Commissioner's Ruling and Scoping Memo, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, p. 2; Opening Comments of Verizon California Inc. (U 1002 C) and Its Certificated California Affiliates on March 30, 2007 Assigned Commissioner Ruling and Scoping Memo, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, p. 4; and Opening Comments of Verizon Wireless on Assigned Commissioner's Ruling and Scoping Memo, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, (hereafter *Verizon Wireless Opening Comments*), pp. 1-2.

³ AT&T, Verizon, Frontier, and SureWest.

⁴ Cbeyond, CTIA, Joint Commenting Parties, and Verizon Wireless.

competitive marketplace will inevitably impede competition and stifle the service quality options available to consumers.⁵

3. The Utility Reform Network (TURN) and the Division of Ratepayer Advocates (DRA) take exception to this conclusion, and argue that competition is not and cannot adequately protect or inform California consumers.⁶ TURN and DRA contend that consumers are confused and inadequately informed, and that expansive, non-comparable, technology-specific carrier data, performance standards, and associated penalties are necessary to ensure the protection of consumer health and safety. TURN and DRA also make a number of assertions regarding consumer preferences for service quality and the purported deficiencies of competition, and take the view that imposing service quality regulations can only result in a net benefit to consumers. The purpose of my reply declaration is to respond to these statements and assertions, and explain why TURN's and DRA's proposed service quality standards and monitoring requirements are unwarranted and, if adopted, will harm California consumers.

II. Summary of Conclusions

4. My main conclusions in this reply declaration are as follows. TURN and DRA offer distinctly different service quality policy objectives, but then proceed to

⁵ Small ILECs, subject to rate-of-return regulation, oppose new service quality regulations on the grounds that "[t]heir service quality remains excellent across the board, and there will be no benefit to customers, the small LECs, or the Commission resulting from the creation of new standards or reporting for Small LECs." See, *Small LECs Opening Comments*, p. 2.

⁶ Opening Comments of The Utility Reform Network on Scoping Memo Issues, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, (hereafter *TURN Opening Comments*), pp. 1-2; and Comments of the Division of Ratepayer Advocates re Inclusion of Wireless Coverage Maps as Part of The Commission's Rulemaking 02-12-004, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, (hereafter *DRA Opening Comments*), pp. 1-2.

provide very similar proposals that increase, rather than decrease, service quality regulation and that are not grounded in any well-defined economic or policy principles.

5. The proposals offered by TURN and DRA reflect their clearly articulated view that competition cannot and will not engender levels of service quality that meet consumers' needs, and that regulators are superior to the competitive market to protect consumers' interests regarding service quality. These are erroneous views, as demonstrated by the examples and evidence I provided in my opening comments. DRA and TURN, in contrast, provide no evidence in support of their claims.
6. TURN and DRA repeatedly make assertions that presuppose what consumers "look at"⁷ when making purchasing decisions and what is "very important"⁸ to customers when they subscribe to telephone service, but provide no evidence that their conclusory statements have any basis in fact.
7. TURN and DRA pay lip service to the concept of regulatory symmetry—a concept that is fundamental to the Commission's articulated regulatory philosophy—but then proceed to ignore it. TURN and DRA claim incorrectly that the objective of ensuring reasonable service quality is in conflict with the objective of competitive and technological neutrality. A deregulatory policy that achieves regulatory symmetry, as I explained in my opening declaration and elaborate herein, promotes consumer welfare by permitting the market to function properly to discipline prices and promote reasonable service quality. The Commission stated clearly in its URF Phase 1 decision that the law carries a "deregulatory purpose," one that encourages the Commission, whenever possible,

⁷ *TURN Opening Comments*, p. 1.

⁸ *DRA Opening Comments*, p. 3.

to rely on competition in place of regulation to ensure reasonable prices and service quality.⁹

8. DRA purports to distinguish between dimensions of service quality that affect public safety and those that do not; implicitly, I believe, on the grounds that where safety is implicated, regulation is justified. However, DRA provides no principled foundation for how or where to draw the line between “safety” concerns and other quality dimensions and, as a result, DRA’s definition of safety-related service quality is so expansive as to have no apparent limiting effect.
9. TURN and DRA fundamentally fail to confront the fact that higher levels of service quality involve higher levels of costs; that regulators are not superior to consumers in their ability to determine and define optimal quality; and that the imposition of quality regulation is therefore not unambiguously beneficial to consumers. If quality had no cost and regulators were omniscient—the implicit premise of TURN’s and DRA’s approach—then regulation would always be desirable; unfortunately, serious analysis of quality regulation must recognize the social tradeoffs, which the proposals and comments of TURN and DRA have failed to do. Their failure to address the genuine issues and tradeoffs of service quality regulation renders their comments of little use to the Commission.
10. My reply declaration is organized as follows: In Section III, I describe the proposals of TURN and DRA, and explain that while TURN and DRA assert different policy objectives, their proposals are largely similar, and would increase substantially the extent of Commission oversight of service quality. In Section IV, I respond to the claims of TURN and DRA that competition is incapable of ensuring reasonable service quality, demonstrating that their claims of market

⁹ Opinion, *Order Instituting Rulemaking on the Commission’s Own Motion to Assess and Revise the Regulation of Telecommunications Utilities*, before the Public Utilities Commission of the State of California, Decision 06-08-030, August 24, 2006, (hereafter *URF Phase I Decision*), pp. 31-36.

failures are inconsistent with the facts or unsupported by evidence, and that DRA and TURN fail to acknowledge in their proposals the limitations and potential harms of regulation. In Section V, I explain that the proposals of TURN and DRA to collect technology-specific data from carriers would impose asymmetric costs and violate competitive neutrality. In Section VI, I respond to DRA's contention that its proposed service quality standards are the "absolute minimum measures essential for consumer health and safety,"¹⁰ and explain that they in fact go well beyond ensuring consumer health and safety. I explain that DRA and TURN offer no principles that would provide guidance as to where to draw the line between safety and non-safety-related factors, nor why the proper regulatory treatment might differ between the two. I conclude the section by articulating the economic criteria relevant to assessing market failure with regard to network reliability and safety. Finally, in Section VII, I explain that the proposals of DRA and TURN are based on the erroneous belief that regulation is a market-perfecting device that can only increase consumer welfare and enhance market efficiency. Their proposals fail to recognize the costs of regulation and the harm that unnecessary regulation can impose on customers and social welfare.

III. DRA and TURN Offer Proposals That Increase, Rather Than Decrease, Regulation of the Industry

11. TURN and DRA present distinct policy objectives to support their proposed service quality standards and monitoring requirements. TURN alleges that "access to clear, concise information that allows consumers to make informed choices between competing services and service providers is more elusive than ever."¹¹ TURN does not elaborate on or substantiate this conclusion, but nonetheless relies on it to support its conclusion that the Commission must impose service quality regulations "to make that information freely available to

¹⁰ *DRA Opening Comments*, p. 7.

¹¹ *TURN Opening Comments*, p. 1.

consumers.”¹² In contrast, DRA presents a narrower policy objective, recommending that the Commission need only adopt the minimum measures necessary to ensure consumer health and safety.¹³

12. The distinction between TURN’s and DRA’s policy objectives, however, is illusory. TURN and DRA produce largely similar proposals that, if adopted, would expand substantially the Commission’s regulatory oversight of the industry. DRA claims that its proposal would impose “a very limited set of [regulations]...the absolute minimum measures essential for consumer health and safety.”¹⁴ While DRA claims its proposal narrows down the list of measures that are applied to providers under the Commission’s jurisdiction to focus only on health and safety concerns, in fact it does not. DRA’s proposal instead offers a set of regulations with no clear connection to health and safety issues and that significantly increase the regulatory burden already imposed on ILECs, and impose new burdens on other providers.¹⁵
13. The proposals of TURN and DRA expand the scope of service quality regulations by:
 - Requiring “positive” reporting on service quality standards (which would mandate recurring service quality reports be filed with the Commission on a quarterly basis), in place of the “exception” reporting process (which

¹² *TURN Opening Comments*, p. 2.

¹³ *DRA Opening Comments*, p. 4.

¹⁴ *DRA Opening Comments*, p. 7.

¹⁵ TURN’s and DRA’s proposed standards and monitoring requirements also appear to be largely arbitrary from a quantitative standpoint, as evidenced by the different standards they have proposed. For instance, with regard to installation intervals TURN proposes a maximum of 3 business days, whereas DRA proposes 5 days. For out of service repair intervals, TURN proposes a maximum of 36 hours, whereas DRA proposes 25 hours. Neither party offers a clear explanation for how they have arrived at these proposed standards and, thus, it is unclear how to explain these differences.

mandates a quarterly report be filed on the dimension(s) of service quality that did not meet the standard for the quarter);¹⁶

- Associating financial penalties with those standards;¹⁷
- Requiring carriers whose service quality does not meet the Commission standard to file written “improvement plans”;¹⁸

and

- Imposing these service quality standards, monitoring requirements, and penalties on all service providers in the state, not just on ILECs.¹⁹

14. Currently, service quality reporting is required of wireline carriers only, reports are filed on an exception basis, there are no automatic penalties associated with them, and reporting carriers are not required to file an improvement plan.
15. The proposals of TURN and DRA are precisely the wrong approach because, as I explained in my opening comments, it is in consumers’ interests for the marketplace to offer a variety of quality levels, and regulators cannot determine welfare maximizing quality levels or menus of offerings. The competitive process provides diverse consumers the combinations of price and service quality they demand, and this activity (which encourages a variety of price/quality options to emerge in the market), in turn, advances the competitive process itself. In contrast, regulators do not have the constant feedback from the marketplace

¹⁶ *DRA Opening Comments*, p. 10.

¹⁷ *DRA Opening Comments*, p. 21; and *TURN Opening Comments*, pp. 14-15.

¹⁸ *DRA Opening Comments*, p. 21.

¹⁹ For example, DRA and TURN propose that a number of service quality measures currently reported by ILECs to the FCC under ARMIS be adopted by the Commission and applied to all California carriers. See, *DRA Opening Comments*, pp. 2, 7; and *TURN Opening Comments*, pp. 3, 18.

that providers do, and therefore cannot know which dimensions of service quality are most important to consumers or most valued relative to their costs, and so are likely to impose requirements emphasizing quality attributes that do not necessarily correlate with customer preferences.

16. I distinguish between dimensions of service that affect safety directly—where, as I explained in my opening comments, minimum standards may be justified—and other aspects of quality, for which the market serves as the most effective regulator. I provided a disciplined analysis of the economic characteristics of services that distinguish those implicating safety from those that do not in my opening comments. I describe this approach further in Section VI below. Where significant safety risks are not directly implicated, competition is superior to regulation to advance consumer welfare.

IV. TURN and DRA Offer Erroneous Assertions Regarding the Nature of Competition and Unsupported Assertions Regarding the Preferences of Consumers

17. The proposals offered by TURN and DRA reflect the opinion that competition is incapable of producing levels of service quality that meet consumers' needs, and regulators are superior to the competitive market at protecting consumers' interests regarding service quality. Neither DRA nor TURN presents evidence to support this assertion of market failure, nor do they explain why regulation would be a superior means of ensuring reasonable service quality. In this subsection I address these claims by presenting several instances where TURN and DRA invoke market failure to justify service quality regulation, without support, while failing to acknowledge the limitations of regulation.

A. DRA claims incorrectly that telephone service customers are without competitive choices

18. DRA makes a number of unsupported, conclusory statements that incorrectly characterize the marketplace today. For example, DRA states that “After a customer purchases phone service, and later on needs repair service, the customer does not have competitive choices.”²⁰ It is clear, however, that there are competitive choices available to consumers, and repair service associated with telephone service is no exception. For example, if a customer requests a repair from Verizon, and Verizon were to offer an unsatisfactory wait time or an unsatisfactory repair, then the customer could choose to immediately disconnect service and rely on his wireless service (“cut the cord”), switch to VoIP, or in many cases switch to his cable provider’s phone service. The evidence presented in the Commission’s URF Phase 1 proceeding of large scale, increasing ILEC line losses, the wide availability of intermodal alternatives, and the success of alternative (wireless, cable, and VoIP) service providers in the California marketplace documented the widespread availability of such options. Recent evidence indicates that competition in California continues to grow and displace traditional wireline services. For example, in the past year, based on FCC data, Verizon California lost an additional 150,000 network access lines, or 4 percent of its total access lines.²¹

²⁰ *DRA Opening Comments*, p. 13.

²¹ Computed from Federal Communications Commission, Electronic ARMIS Filing System, Report 43-01, Table II, http://svartifoss2.fcc.gov/eafs/adhoc/table_year_tab.cfm?reportType=4301 (accessed June 13, 2007). These trends are being seen at the national level as well. Richard Klugman and Abdulmalik D. Ismaila, “1Q07 Results Recap: Wireline Held Steady Despite Line Losses, While Wireless Growth Remains Impressive,” Prudential Equity Group Analyst Report, May 14, 2007, p. 3 (“Incumbent telco access lines trended to sharper losses (30 bp sequential acceleration), as cable VoIP competition rose, especially from Comcast, and wireless substitution continued...Access lines declined by 6.8% year-over-year, 30bp worse than in the prior quarter.”); Mike McCormack et al., “1Q07 Large Cap Outlook,” Bear Stearns U.S. Equity Research Analyst Report, April 13, 2007, p. 2 (“We forecast total access lines at the RBOCs to decline 6.9% (8.1M lines)...[and] RBOC retail consumer lines to fall 7.3%, 20 bps higher than the 7.1% decline in fourth-quarter 2006.”); and Christopher C. King, “2007 Industry Overview and Outlook,” Stifel Nicolaus Telecom Services Equity Research Analyst Report, January 4, 2007, p. 32 (“Cable has huge head-start in offering wide array of services due to greater bandwidth on its plant currently.

B. DRA is apparently unaware that most households do not rely on a single mode of communication

19. DRA further claims that reports of “out of service trouble” are of particular importance relative to other service quality measures because when a customer loses service he is “totally without service.”²² As a general characterization of the marketplace today, this is simply not true and reflects an outmoded perspective on the communications landscape. Most consumers today subscribe or have access to multiple means of communication, including intermodal alternatives such as mobile wireless, cable, and VoIP voice, Internet access, email, IM, and other data services. According to a recent report released by the Centers for Disease Control examining wireless usage in the U.S., the majority of U.S. households with landline telephone service also subscribe to wireless service.²³ In California, based on the most recent data released by the FCC, the number of wireless subscribers (27.5 million) far exceeds the number of local access lines (22.4 million).²⁴
20. The concept of reliability today must, therefore, be understood differently than it was a decade ago. From a consumer’s standpoint, while no one wants to endure a loss of service on his wireline telephone, the effects of such a service outage today are not what they were even 5 years ago. A consumer’s ability to communicate with the rest of the world is not dependent on the wireline phone to the extent it once was, because customers typically have more than one mode of communication available. Today there is widespread network redundancy even at the household level.

Telecom plant will catch up, but the loss of access lines continues to be a deeper blow to the relatively non-diversified telcos.”).

²² *DRA Opening Comments*, p. 15.

²³ Stephen J. Blumberg and Julian V. Luke, “Wireless Substitution: Early Release of Estimates Based on Data from National Health Interview Survey, July – December 2006,” Division of Health Interview Statistics, National Center for Health Statistics, May 14, 2007, Table 1, p. 4.

²⁴ “Local Telephone Competition: Status as of June 30, 2006,” Federal Communications Commission Industry Analysis and Technology Division, Wireline Competition Bureau, Tables 7 and 14.

C. TURN makes the unsubstantiated claim that carriers have inherent bargaining power over consumers

21. Like DRA, TURN asserts conclusions about the marketplace that do not reflect today's realities. First, TURN claims that "carriers have the upper hand in any relationship between consumers and service providers."²⁵ This sort of rhetoric, which is not based on any evidence, demonstrates TURN's disregard for the power of the consumer and the effects of competition. In a competitive market, customers are empowered because they can deprive carriers of their business by switching providers.
22. The power of consumers to, with relative ease, deprive a company of their patronage is a fundamental mechanism by which the marketplace disciplines competitors. As explained by Economics Professor Hal Varian in his widely used textbook, *Intermediate Economics*, "A firm can produce whatever is physically feasible, and it can set whatever price it wants...but it can only sell as much as people are willing to buy."²⁶ It is evident around the country that convergence in U.S. communications technology is producing consumer benefits in ways not anticipated a decade ago, and is producing new services, increased quality, and service combinations offered at lower prices. These developments demonstrate the sovereignty of consumers in the marketplace to elicit product innovations and improvements. Press reports, for example, have chronicled ILECs' recent efforts to deploy new facilities and upgrade their existing telecommunications facilities to offer video services, and cable providers' response to this threat:

In municipalities that have let Verizon sell television, the results have been promising for consumers, regardless of whether they have remained with their current cable provider or switched sides. That is because both incumbent and challenger are pushing

²⁵ TURN Opening Comments, p. 1.

²⁶ Hal R. Varian, *Intermediate Economics: A Modern Approach*, 3rd ed. (New York: W.W. Norton & Company, 1993), (hereafter *Varian 1993*), p. 363.

bundles of products that often carry significant discounts and plenty of goodies...

"There's no question that at the end of day, the consumer wins," said Jeffrey Halpern, a telecommunications analyst for the brokerage house Sanford C. Bernstein & Company.²⁷

[C]able providers like Time Warner Cable, which serves about half the homes in San Antonio [where AT&T recently deployed its U-verse video offerings], are fighting back. To keep customers from leaving, they are discounting their television and phone plans, throwing in premium movie channels and faster Internet connections.²⁸

The Web-site competition [to provide consumers content-rich web portals] is the latest front in the war between cable and telephone companies for the multibillion-dollar broadband business. Operators also are trying to beat each other by offering faster speeds and attractive prices, and phone and cable operators are competing to offer consumers the most attractive packages of TV, phone and high-speed Internet services.²⁹

D. TURN makes the unsubstantiated claim that it is irresponsible for regulators to rely on market forces to supply reasonable service quality

23. TURN's view of competition is further elucidated by its statement that it is "not sufficient to entrust the job of ensuring high quality to the marketplace and hope for the best."³⁰ Again TURN espouses the position that regulators can advance customer welfare better than can the market, the market being an object of fear and skepticism, and the regulators held up implicitly as an omniscient body with

²⁷ Ken Belson, "A Wiring War Among Giants," *New York Times*, December 10, 2006.

²⁸ Ken Belson, "AT&T Is Calling to Ask About TV Service. Will Anyone Answer?" *New York Times*, July 3, 2006.

²⁹ Samar Srivastava, "Broadband Battle: Cool Web Sites," *Wall Street Journal*, May 31, 2007, p. B3.

³⁰ *TURN Opening Comments*, p. 7.

the ability to outperform the market in advancing consumer welfare. It appears that TURN's perspective has two components: first, TURN does not accept that the marketplace is in fact competitive; and, second, that even if it is, competition cannot be relied upon to protect consumers. The first conclusion is inconsistent with the evidence amply supplied in the URF Phase 1 decision and the findings of the Commission in that case. The second conclusion disregards the deregulatory, market-oriented philosophy set forth in California and federal law and articulated by the Commission.³¹

24. The ability of competition to advance consumer welfare is not a matter of “hope,” but has been demonstrated throughout our economy, including in the wireless and airline industries (as I documented in my opening comments), and by the innovations and investments of cable television companies who have significantly encroached on residential wireline companies through cable-provided bundles of Internet access, VoIP, and video services. In fact, as the evidence I presented indicates, the market is producing the level of service quality consumers demand. Customers on balance are leaving the regulated wireline carriers as a whole and going to unregulated carriers at an increasing rate,³² presumably because they prefer the combination of price and quality voluntarily chosen by unregulated companies to those provided by regulated companies.

E. TURN misrepresents Verizon's effort to provide improved service quality as a strategy to degrade quality

25. TURN's view of the “problems” that regulation can “solve” is illuminated by the example it offers regarding standardizing installation intervals.³³ TURN explains that Verizon offers installation service on the weekends, but does not count those days in recording the installation interval for purposes of regulatory reporting.

³¹ URF Phase 1 Decision, pp. 31-36.

³² See evidence and citations presented footnote 21.

³³ TURN Opening Comments, p. 8.

TURN sees Verizon's reporting practice as a problem because it interferes with the regulatory objective of measuring and monitoring service quality. Rather than being a "problem," however, the fact that Verizon offers service on the weekend is evidence that Verizon is responsive to competition and to consumer preferences, and seeks to differentiate itself from those competitors that do not offer weekend installations, by better meeting the needs of its customers. Only a regulatory mindset could identify enhanced service quality as a "problem" on account of its interference with regulatory reporting requirements. In fact, the additional service options offered by Verizon are evidence that the reporting requirements with which they allegedly interfere are unnecessary in the first instance.

F. TURN Makes the Unsubstantiated Claim That an Information Gap Exists

26. TURN claims that "access to clear, concise information that allows consumers to make informed choices between competing services and service providers is more elusive than ever...and service quality data essentially remains unavailable."³⁴ Once again, TURN presents no evidence to support its claim—in this case that the market is supplying information insufficient for consumers to make informed choices. There is no evidence that information is "elusive" or that consumers who regularly make many purchase and consumption decisions have any particular difficulty understanding the offers made in the marketplace, or are unable to make reasonable decisions based on those offers. In fact, the development of the Internet and the high level of household penetration of Internet access have created an explosion of information opportunities for consumers, including from the providers' web sites and third party sites. As I discussed in my opening comments, some of these third party web sites, such as www.cellreception.com, offer opportunities for customers to directly share experiences by posting

³⁴ *TURN Opening Comments*, pp. 1-2.

comments.³⁵ There are also websites, such as www.wirefly.com and www.whitefence.com, that allow consumers to compare prices and functions among various wireless and wireline alternatives. Moreover, with increased competition comes increased marketing and advertising, which are attempts by the suppliers to proactively reach out to consumers with information about their services. While TURN may dismiss these efforts as “hype,”³⁶ they are, in fact, important and legitimate ways by which companies, at their own expense, deliver information to consumers.

27. Likewise, DRA claims to have “conducted a literature review” of relevant sources of survey data on telecommunication service quality,³⁷ but cites no literature and only a single source of surveys: ILEC-supplied surveys mandated by the FCC and presented in ARMIS reports. DRA provides no references or support regarding what “literature” it reviewed. Notwithstanding the fact that DRA’s literature review apparently identified only one source of surveys, many sources of third-party consumer survey data address telecommunications service quality.
28. Moreover, DRA fails to consider the fact that if market developments create a new information void, third parties will have incentives to fill the void by assembling and providing the information. As I elaborated in my opening comments, where information is valuable, there is a business opportunity to provide it. The availability of complicated service offerings may suggest a need for information to be provided to consumers, but it does not indicate that regulators must be the ones to provide that information, nor that they are in the best position to do so. Research, analysis, and provision of information are valuable economic activities provided by a number of businesses. As both Michael Fernandez and I mentioned in our opening declarations, and a number of parties described in their opening comments, third parties like Consumer Reports,

³⁵ *Aron Opening Declaration*, p. 39.

³⁶ *TURN Opening Comments*, p. 6.

J.D. Power, TNS Telecom, Jupiter Research, eMarketer, Yankee Group, In-Stat, ACSI, the Consumers' Checkbook, and others collect and disseminate consumer survey data on the service quality of communications services.³⁸

V. The Proposals of TURN and DRA to Collect Carrier Data on Service Quality Would Impose Asymmetric Costs and Violate Competitive Neutrality

29. TURN and DRA advocate monitoring requirements that take the form of quarterly reports on non-comparable, technology-specific quality measures to be provided to the regulator by carriers (in addition to consumer surveys performed by the Commission). In this section I explain that their proposed reporting obligations are unnecessary and not competitively neutral. Pursuing a symmetric regulatory framework requires “letting go” and allowing the marketplace to function in order to provide consumers their preferred levels of service quality. The non-symmetric proposals advocated by TURN and DRA would impede competition and thereby distort the supply of service quality, to the detriment of consumers.

A. The Proposals of TURN and DRA to Collect Carrier Data on Service Quality are Not Competitively Neutral

30. TURN instructs the Commission to collect data from “all providers,” including traditional wireline, wireless, cable and VoIP,³⁹ whereas DRA contends the

³⁷ *DRA Opening Comments*, pp. 5-6.

³⁸ *Aron Opening Declaration*, p. 38; Declaration of Michael Fernandez Supporting the Opening Comments of Verizon California Inc. and Its Certificated California Affiliates, *Order Instituting Rulemaking on the Commission's Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-044, May 14, 2007, pp. 10-12; *CTIA Opening Comments*, pp. 4-5; and *Verizon Wireless Opening Comments*, pp. 3-4.

³⁹ *TURN Opening Comments*, p. 3.

Commission must collect data “not just for ILECs but for all telephone service providers under its jurisdiction.”⁴⁰

31. TURN’s assertions to the contrary, the Commission does not, according to its own findings, have jurisdiction over all companies that compete in the relevant marketplace. The Commission recognized this fact in its Phase 1 decision when it noted, “It currently is not possible for the Commission to adopt a completely uniform regulatory framework that applies to all communications carriers, because the Commission does not have jurisdiction over all communications service providers.”⁴¹ Therefore, were the Commission to adopt DRA’s proposal of collecting monitoring data from all carriers “under its jurisdiction,” it would exempt a substantial number of providers, such as VoIP service providers, who not subject to Commission oversight; and would thereby violate the principle of uniformity or competitive neutrality. In fact, DRA fails to acknowledge anywhere in its comments that VoIP is a competitive alternative at all, or that providers of VoIP service are outside the Commission’s jurisdiction. TURN similarly fails to address the inherent asymmetry in its proposal to extend monitoring requirement to all carriers, including VoIP service providers, by failing to confront jurisdictional limitations on the Commission’s ability to collect service quality data from all providers.
32. As I explained in my opening declaration, collecting data from carriers, as TURN and DRA propose, would create obligations and costs that are not competitively neutral. Imposing monitoring requirements on only a subset of competitors is not competitively neutral because it is costly for carriers to comply with these requirements. If compliance costs are imposed on a subset of competitors and do not apply equally to all competitors, competition is distorted in favor of those service providers who escape the costs of reporting requirements and against

⁴⁰ *DRA Opening Comments*, p. 2.

⁴¹ *URF Phase 1 Decision*, p. 261 and 273 (indicating different levels of jurisdiction over different voice service providers).

those who must report. Since the Commission does not have jurisdiction over all competitors, requiring such monitoring reports of some would not be consistent with its goal of competitive neutrality.

33. Even if the Commission had jurisdiction over all providers, the policy proposals of TURN and DRA would be poor public policy. Extending service quality regulation to unregulated technologies and services that are enjoying undeniable growth in demand, innovation, and popularity—out of a desire to maintain regulatory symmetry with the regulated incumbent—would harm consumers and harm the overall interests of the state. Imposing service quality restrictions on such companies can only interfere with their investment decisions and ongoing attempts to meet consumer demand for quality, service attributes, and price. Each company in a competitive market attempts to provide the optimal balance of quality and price, taking into account that higher quality creates more costs and therefore higher prices. To compete effectively, wireless and VoIP providers must actively assess consumer preferences and modify their services, prices, and customer support to reflect the best information about changing consumer needs and tastes. Restricting these efforts would be counterproductive to social welfare. The fact that these newer technologies compete with incumbent wireline providers does not lead to the conclusion that competing technologies should also be regulated, but rather that a policy rationale no longer exists for preserving or increasing existing service quality regulations imposed on the incumbents.

B. The Proposals of TURN and DRA Disregard the Commission's Stated Objective of Competitive Neutrality

34. TURN and DRA acknowledge that differences among intermodal services render the collection of certain service quality data asymmetric and, therefore, violates the Commission's obligation to pursue a uniform, competitively neutral regulatory framework. In particular, DRA indicates that certain service quality measures, such as service installation time, apply only to a subset of competing

technologies and thus, requiring reporting of such measures would be contrary to symmetric regulation.⁴² Despite this shortcoming, DRA concludes that the alternative (no mandatory service quality reporting) would nevertheless be an abandonment of the Commission’s “service quality duties.”⁴³ Likewise, TURN states that it “is well aware of the Commission’s objectives for competitive and technological neutrality. However, those objectives must not take precedence over the at least equally important goal of protecting and empowering consumers.”⁴⁴

35. By referencing and then abandoning the principle of competitive neutrality in favor of service quality monitoring obligations, DRA and TURN present a false choice to the Commission. The Commission can satisfy its “service quality duties” *and* uphold the principle of competitive neutrality by refraining from requiring carriers under its jurisdiction to file service quality monitoring reports. DRA erroneously equates forbearance to abandonment of its duties, and regulatory intervention to promoting consumer welfare. In the present context, where the Commission has already found the market to be competitive following an extensive evidentiary proceeding, forbearance is not abandonment, but rather a recognition that competition is the preferred means of promoting consumer welfare through reasonable prices and service quality. The Commission’s clearly articulated preference for relying on competition in place of regulation is premised on empirical evidence of effective competition, and a belief that regulation can be “burdensome and unnecessary” and “may even disadvantage consumers” in markets where competition is present.⁴⁵
36. Further compounding the asymmetry of its proposal, DRA recommends that carriers with fewer than 5,000 customers be exempt from its proposed standards

⁴² DRA Opening Comments, p. 5; and TURN Opening Comments, p. 7.

⁴³ DRA Opening Comments, p. 2.

⁴⁴ TURN Opening Comments, p. 15.

⁴⁵ URF Phase I Decision, pp. 168-169, 182-184.

and monitoring requirements.⁴⁶ DRA offers no principles upon which to draw this distinction, further undermining the concept of regulatory symmetry.

37. In short, TURN and DRA's conclusion that competitive and technological neutrality is at odds with the goal of protecting and empowering consumers is incorrect. They are consistent objectives. By pursuing its deregulatory purpose based on a uniform regulatory framework, the Commission allows the marketplace to function efficiently and effectively to provide consumers their preferred levels of service quality and their preferred tradeoffs between quality and price.

VI. DRA Provides No Principled Foundation for Its Definition of "Essential" Safety and Health Standards

38. DRA contends that its proposed service quality standards are "the absolute minimum measures essential for consumer health and safety."⁴⁷ However, DRA's recommended standards go well beyond ensuring consumer health and safety, and nowhere does DRA explain how one is to distinguish between essential and non-essential standards. For instance, DRA proposes to regulate the amount of time it takes for customers to reach a live operator, claiming that "when customers need to contact the phone company, they want to be able to do so without delay, no matter what the subject of their inquiry is."⁴⁸ Clearly, the notion that the length of time one waits to reach a telephone operator is a matter of health and safety is, at best, a stretch. While it is undoubtedly true that customers would prefer to face no delay when calling the phone company, this is not a sufficient justification for regulation in a competitive market, and demonstrates DRA's lack of analytical basis for its recommendations. Speed of answering is one of many quality

⁴⁶ *DRA Opening Comments*, p. 21.

⁴⁷ *DRA Opening Comments*, p. 7.

⁴⁸ *DRA Opening Comments*, p. 8.

characteristics, and one that involves a cost and tradeoff with other quality attributes. The assertion that this issue is “of vital importance” to customers, and that customers would prefer faster answering time by a live person to other benefits that would have a similar cost, lacks foundation.⁴⁹ DRA certainly makes no attempt to demonstrate that this is a matter of health and safety.

39. In addition, there is no basis for DRA’s position that the use of interactive voice response (IVR) systems or other aspects of speed of answering in any way implicate safety and reliability of the network. The fact that physicians’ and dentists’ offices routinely use IVRs—despite the fact that patients may reasonably be expected to be calling with serious, painful, or life threatening emergencies — suggests that IVRs are not inherently a threat to the public safety. Moreover, we have not seen fit as a society to regulate the length of time it takes for doctors and dentists to answer their phones, either by a machine or a live person.
40. Although TURN provides no substantive analysis upon which it bases its recommendations in its most recent comments, in its 2003 comments in this proceeding TURN cites to network externalities as a basis for its proposed service quality regulations. An externality or more specifically, for what is at issue here, a “non-pecuniary” externality, is an economic term describing a market transaction that has an economic effect on a third party, where this effect is not reflected fully in the price paid by the buyer and/or the cost incurred by the seller.⁵⁰ A network externality, or what is also referred to as a network effect, is a type of externality in which the value of a service to any given customer depends on the number of existing customers.⁵¹ For instance, the value to any one customer of being on the PSTN is, in principle, enhanced the more other customers are also on the PSTN, because there are more people to call and from

⁴⁹ *DRA Opening Comments*, p. 6.

⁵⁰ *Varian 1993*, pp. 545-546.

⁵¹ Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy*, (Boston: Harvard Business School Press, 1999), p. 13.

whom to receive calls. An externality could also be negative, such as that caused by additional congestion to each customer on a shared-capacity network as more users join.

41. TURN asserted that “Allowing poor-quality carriers to flourish reduces the quality of service for all. This in turn creates negative externalities that adversely affect the economy, worker productivity, information flow, and emergency response capability.”⁵² In its most recently filed comments, TURN makes no specific reference to network externalities as a basis for its current proposed standards and monitoring requirements, but refers generally back to its 2003 comments for the “reasons why the Commission could not solely rely upon competition to ensure high service quality.”⁵³ To the extent that TURN intends by reference to incorporate its discussion in its 2003 comments into its current position, I feel it is necessary to respond to TURN’s network externalities theory.
42. While the particular avenue by which TURN envisioned that harm would unfold as a result of network externalities in the absence of service quality regulations is not clear, it is clear that network externality concerns are not relevant to some of TURN’s proposed service quality regulations, such as limitations on customer service answer times. These attributes of service quality affect the customer, but do not impose significant external costs on third parties, nor are they peculiar to the fact that the service at issue happens to involve the telephone network.
43. If TURN’s concerns regarding network externalities pertained to the fact that networks are interconnected and a network failure on one network could affect service provision on other networks, this concern is addressed by requirements

⁵² Opening Comments of The Utility Reform Network, *Order Instituting Rulemaking on the Commission’s Own Motion into the Service Quality Standards for All Telecommunications Carriers and Revisions to General Order 133-B*, before the Public Utilities Commission of the State of California, Docket No. R.02-12-004, April 1, 2003, p. 8.

⁵³ *TURN Opening Comments*, p. 6.

outside the scope of this proceeding. There already exist industry technical standards with which all carriers must comply that are intended to maintain network quality and interconnection services. These network standards are established by various national and international standards groups.⁵⁴ For example, there are standards regarding the placement of equipment in a carrier's central office and the testing of network equipment, similar to the tests conducted by Underwriter's Laboratories for consumer electrical devices. Likewise, there are regulatory requirements that specify in great detail the service quality standards for operational support systems (OSS)⁵⁵ and interconnection services.⁵⁶ It is my understanding that these technical standards are not being considered for modification or elimination in this proceeding.

44. Alternatively, TURN's concern may be that certain carriers will choose to provide lower relative quality in certain dimensions, such as voice clarity or percentage of dropped calls, and that this should not be allowed because it will impose an externality on some third party. For example, if I subscribe to a wireless carrier that offers inferior call clarity because I care more about other attributes, superior features, or lower prices that this provider offers, my choice affects all of my friends and family who call me and experience the inferior call quality. This effect on my friends and family might be considered a "network externality." Nevertheless, I do not find it a persuasive argument that regulators should deprive customers of the option of lower-clarity, lower-priced services that they would

⁵⁴ See, for example, Telcordia, GR-1089-CORE "Electromagnetic Compatibility and Electrical Safety;" International Telecommunications Union, "Structure and Functioning of the Standardization Sector," www.itu.int/aboutitu/overview/tsb.html (accessed June 7, 2007); and Federal Communications Commission, Office of Engineering and Technology, "Key Telecommunications Standards Related Groups," www.fcc.gov/oet/network/keygrps.html (accessed June 11, 2007).

⁵⁵ Opinion, *Order Instituting Rulemaking on the Commission's Own Motion into Monitoring Performance of Operations Support Systems*, *Order Instituting Investigation on the Commission's Own Motion into Monitoring Performance of Operations Support Systems*, before the Public Utilities Commission of the State Of California, Decision 01-05-087, May 24, 2001.

⁵⁶ See, for example, "Summary of SBC/Ameritech [Merger] Conditions," Federal Communications Commission, www.fcc.gov/Bureaus/Common_Carrier/News_Releases/1999/nrc9077a.html (accessed June 3, 2006).

otherwise purchase, on the grounds that people who call them will be negatively affected. As I have explained, limiting service quality through regulatory standards necessarily limits the alternatives a carrier can offer customers. Precluding service offerings that some customers would otherwise prefer may reduce subscribership or alter consumption in other ways that reduce overall consumer welfare, even considering the network “externality” imposed on third parties by the lower levels of quality.

45. Finally, there is no reason to believe, nor does TURN offer any, that competition would fail to encourage providers to offer levels of quality that promote overall economic development and worker productivity. To the extent that emergency response concerns such as 911 service are implicated, I do not think there is disagreement that there is scope for regulatory oversight, and that aspect of service quality is therefore not at issue. In the following subsection, I reiterate and elaborate upon the economic criteria relevant to assessing market failure with regard to network reliability and safety.

***A. Economic Evaluation of Necessary Health and Safety Regulations
Must Be Premised on a Demonstration of Market Failure***

46. As I have discussed at length in my opening declaration, the concept of “service quality” encompasses a large variety of service characteristics. For example, in economic terms, the service quality provided by an airline includes everything from the accuracy of the ticketing process on the web site, to the probability that the airline loses your luggage, to the probability of a catastrophic accident. These are entirely different aspects of the service “experience” for the customer, have significantly different effects on the customer’s satisfaction and perception of the service provider, and yet they are all components of what economists view as service quality. Nevertheless, despite the fact that economic analysis treats these all as dimensions of service quality, they are not equal, as an intuitive, or as a policy matter, in the importance that we as a society assign them.

47. It is relevant to ask, if competitive markets are effective in regulating service quality and if competition elicits the efficient array of quality/price combinations, as I have explained, is there any role for regulators in supervising service quality that will enhance consumer welfare? In fact, there are meaningful distinctions between safety and (certain aspects of) reliability on the one hand, and other dimensions of service quality on the other. These distinctions provide guidance on why regulatory oversight can be valuable for safety and reliability, while competition is sufficient to regulate other aspects of service quality.
48. It is helpful to remember the mechanism by which competition is effective generally in regulating service quality. I mentioned these issues in my opening comments, but in light of the lack of substantive analysis on this point elsewhere in the record so far, and the expansive approaches articulated by DRA and TURN, I feel it will be useful to the Commission to elaborate on my opening comments briefly on this issue. Suppose the dimension of service quality that is at issue is the percentage of dropped calls, the friendliness of service representatives, or the accuracy of billing. When a customer subscribes to a carrier, the customer will observe these characteristics over time. If the customer does not find the service attractive, the customer can switch to another provider (perhaps after a lag if the customer is under contract). Even if the customer cannot switch right away, the customer can inform her family and friends about the quality of service received, and influence their decisions. Indeed, journalists or researchers can and do conduct studies of the service quality and publish reports on it, so that new customers can make informed decisions about the relative performance of different carriers on these quality dimensions. Even if a given customer rarely or never calls customer service, and therefore never experiences whether the customer service representatives are friendly, competent, or prompt, customers can learn from the experience of others through word of mouth, and through organizations such as Consumer Reports and the press. There is no apparent reason that the market mechanism cannot drive high powered incentives to provide quality of service on these dimensions that best meet consumer demand.

49. Certain dimensions of service quality, however, do not meet this description. Consider, for example, the probability that there will be a failure of an entire switching center due to a fire or criminal act; that there will be network outage due to a natural disaster; or that the privacy safeguards of the entire network will be compromised by vandalism. What these kinds of events have in common are the following:
- i. they are very rare across the entire network (not just for an individual);
 - ii. if/when they occur, they significantly threaten public or individual safety;
 - iii. when they occur, the probability and/or extent of failure or social harm is not entirely outside of the control of the carrier; and
 - iv. customers have inadequate expertise and knowledge to judge their risks or the measures taken by the carrier to prevent them.
50. When these conditions hold, the market is not necessarily adequate to ensure the efficient level of service quality. These conditions together may constitute a form of market failure. The first condition means that it is not only impossible for an individual to assess the quality of the provider's service based on his own experience (since it may take decades to experience the problem even once), but even an aggregation of data from many or all customers would not be sufficient to judge quality on this dimension, because there are not enough examples of failure to draw inferences. For example, the probability of an airplane crash is so tiny that one could observe an airline for years and would be unable to distinguish between one with a probability of 2 in a million and 4 in a million of a crash, even though the latter has twice the probability of the former, and even if one or both airlines experience crashes during that time. The randomness of the events means that were one to observe, say, 1,000 flights a day, it would take approximately 11 years to determine with reasonable confidence whether airline A or airline B is safer if safer means two in a million rather than four in a million and assuming the

probabilities do not change over time.⁵⁷ If the probabilities change over time, due to airlines varying their investments in safety, it may not be possible to know which airline is “safer” today no matter how long one could observe them. Moreover, the consequences of a failure to achieve efficient service quality are severe. Hence, in these circumstances, it may be appropriate to superimpose regulatory oversight and regulatory standards on providers in the market.

51. The kinds of dimensions of service quality that satisfy these conditions include ensuring that network standards are developed and upheld regarding fail-safe measures and redundancies so that the networks are efficiently resilient to attack, natural disaster, and accident.
52. There may be another, separate justification for certain types of regulatory intervention, that relate specifically to services such as 911 service. The provision of 911 service does not fit entirely within the criteria I have laid out for services that merit regulation. The reason is that while it is very rare for individuals to have a life-threatening situation requiring access to 911 service, it is not rare at all across the network as a whole. Hence, in principle, the reliability of the system for providing 911 service can be assessed, if not by individual customers, by surveys of customers (for example) who in aggregate could provide reasonably accurate data on the reliability of 911 service. If reliable information is available, there is no informational impediment to the market functioning well to provide incentives for socially optimal service quality that responds to consumer demands.

⁵⁷ If we use the Poisson approximation to the binomial distribution, and apply a t-test at the 95% confidence level for the higher failure rate (2×10^{-6}), we get: $\frac{4 \times 10^{-6} - 2 \times 10^{-6}}{\sqrt{(4 \times 10^{-6})/n}} = 2$, where n is the number of observations. Solving for n , we find that $n = 4$ million. Therefore, if we assume 1,000 observations per day, in order to achieve a sample of 4 million observations, we must observe 1,000 flights for 10.95 years.

53. The possible rationale for regulatory intervention, however, is two-pronged. First, the harm consequent to a failure of the 911 system is often of a life-threatening nature, and is therefore so significant that the harms may be irreparable if there is a failure. Second, it is a recognized phenomenon in experimental economics that individuals have a poor ability to assess very small probabilities.⁵⁸ When both of these conditions hold—very unlikely events with irreparable outcomes—the competitive process may not be sufficient to adequately protect customers.
54. This does not mean necessarily that the regulatory process would be superior to the market in such circumstances, but rather that it is reasonable to consider whether regulation can improve on the competitive process to protect consumers. As I have already discussed in detail, both in this declaration and my opening declaration, there are drawbacks to adopting regulation in competitive markets. A credible need for 911 protections should not be considered *carte blanche*, unconditional authority to adopt a regulated solution. It is imperative that regulators first identify the costs associated with the regulations and compare them to their anticipated benefits, taking into account that where government controls interfere with the market, there will also be eventually unintended consequences caused by these controls and those unintended consequences may be particularly grave when they affect 911 service. Regulatory solutions should be tailored to the identified need.
55. This discussion of the role of the market and regulation in the provision of service quality is intended to explain how DRA's proposal is overly expansive, is untethered to well-defined principles that both identify and limit quality areas that implicate genuine issues of health and safety, and does not comply with its stated objective to adopt a minimum set of service quality regulations necessary to

⁵⁸ W. Kip Viscusi, John M. Vernon, and Joseph E. Harrington, Jr., *ECONOMICS OF REGULATION AND ANTITRUST*, 2nd ed., (Cambridge, MA: MIT Press, 1997), Figure 19.2, pp. 661-663; and Amos Tversky and Daniel Kahneman, "Rational Choice and the Framing of Decisions," *Journal of Business* 59, no. 4, part 2 (October 1986).

ensure consumer health and safety. It is also intended to provide the Commission a disciplined approach to distinguishing between those areas where it is reasonable and in the public interest to rely on the market to induce service quality that promotes consumer welfare, and where it is reasonable and appropriate to consider regulatory intervention. The economic principles are consistent with the policy approach articulated in the Commission's mission statement, which focuses regulatory attention on areas where consumer safety and reliability are directly and clearly at stake.

56. My discussion also provides guidance as to what sorts of reliability issues are possible candidates for regulation and what sorts are clearly better left to the market to regulate and discipline. There are many dimensions of reliability that, while they are undoubtedly important to consumers, are best left to the competitive market to determine. For example, the probability of having a service repairman arrive at my home on time, or a voice mail delivered to my cell phone in a timely fashion, could be considered a "reliability" issue. However, these components of service quality, which are possibly very important to consumers, nevertheless do not encompass activities that would reasonably be considered to have life-threatening consequences and can be left to the disciplining forces of competition.

VII. DRA and TURN Fail to Acknowledge That Regulation is Costly

57. TURN and DRA fail to acknowledge anywhere in their opening comments that there are costs to adopting service quality regulations. Instead, they appear to consider regulation to be a costless, market-perfecting device that can only contribute positively to consumer welfare and enhance market efficiency. This distorted perception of regulation, and its impact on competition, is evidenced in a number of statements in the opening comments of TURN and DRA.

A. Growth in Competition or the Rapid Adoption of a Competitive Service are Not Grounds for Regulation

58. TURN believes that service quality regulations “are even more important and relevant” in markets where there is competition and it is growing, than in markets where competition is absent or less developed.⁵⁹ TURN’s argument is contrary to fundamental economic principles and empirical evidence. As well-known economist Daniel Spulber and prominent policy expert Gregory Sidak correctly explained in the *Yale Journal of Regulation*:

Regulation is a *proxy* for competition, not a *replica* of it. Rather than attempting to replicate the market, regulators should recognize that achieving market outcomes requires removing regulatory restrictions as telecommunications markets become increasingly competitive. Expanding the scope of regulation will only make it less, not more, plausible that regulators will be able to achieve market outcomes.⁶⁰

59. In an empirical study by Professors Charles Fine and John de Figueiredo, which includes detailed case studies of the process of deregulation in several industries, the authors reach three fundamental conclusions:

[1] Regulations change much more slowly [than] do markets and technology, and delayed deregulation can have large negative consequences for social welfare.

[2] When outmoded regulations are relaxed or eliminated piecemeal, partial reforms can exacerbate the economic distortions, to the point of diminishing rather than increasing social welfare.

⁵⁹ *TURN Opening Comments*, pp. 4-5.

⁶⁰ J. Gregory Sidak and Daniel F. Spulber, “Deregulation and Managed Competition in Network Industries,” *Yale Journal on Regulation* 15, no. 117 (Winter 1998), p. 140 (emphasis added, footnotes omitted).

[3] Whenever it comes, comprehensive deregulation invariably gives rise to an increase in innovation, growth, and social welfare gains.⁶¹

60. Retaining regulatory oversight of a market when it is unwarranted is not a cost-free decision, and in the end, it is the consumer that bears the cost of being denied the benefits of competition. Policies that unnecessarily interfere with, delay, or prevent competitive forces to function, or that seek to impose regulation on a competitive market, serve only harm to consumers and social welfare.
61. DRA points to the tremendous increases in wireless penetration in the last 6 years as justification for regulating wireless service quality.⁶² The alleged need for regulation is precisely the wrong inference to draw from the increased use of wireless services. The increased popularity of wireless services, as evidenced by soaring penetration and soaring usage rates, is accompanied by decreasing prices, new services, vibrant innovation, and continuing investment in infrastructure. Clearly, competition is working as one would want it to work to bring benefits to consumers, without regulatory intervention.
62. More generally, TURN and DRA appear to believe that every inconvenience is a justification for regulation. It is not. Regulators cannot render the marketplace perfect. No service provider, whether regulated or unregulated, is perfect. There is no reason to believe that regulation will decrease the incidence of annoyances that consumers face from time to time. Consumers' best weapon against unsatisfactory treatment or service quality that they don't like is the ability to switch to another provider, or to have the credible threat to do so. More fundamentally, as I have already explained with reference to the airline industry, conclusions regarding welfare effects of changing service quality cannot be made

⁶¹ Charles H. Fine and John M. de Figueiredo, "Can We Avoid Repeating the Mistakes of the Past in Telecommunications Regulatory Reform?" MIT Communications Futures Program Working Paper 2005-001, March 21, 2005, (hereafter *Fine and de Figueiredo 2005*), p. 11.

⁶² *DRA Opening Comments*, p. 4.

by reference to one or few dimensions of quality, but instead must capture all dimensions of service, including the associated price. Economic research that has examined the overall net consumer welfare effects of wireless penetration have demonstrated that mobile wireless services have brought tremendous consumer surplus to customers.⁶³

63. TURN cites to a declaration filed by economics Professor Robert Harris, who (correctly) testified before this Commission almost 9 years ago that “There is a serious misconception that competition improves service quality, raising it to some uniformly high level: IT DOES NOT.”⁶⁴ TURN contends that Dr. Harris’ statement is consistent with its conclusion that service quality regulation is needed to achieve “high quality telecommunications services.” Likewise, TURN cites to the popularity of “no frills” airlines as evidence that “it is more often the case that competition fosters low quality/low price options” and that “It is not sufficient to entrust the job of ensuring high quality service to the marketplace and hope for the best.”⁶⁵
64. TURN’s conclusion that the Commission must not rely on competition to satisfy its regulatory objectives is contrary to the Commission’s conclusion in its URF Phase 1 decision, where the Commission stated that California law “endorses a reliance on competitive markets to achieve [its policy] goals.”⁶⁶ When competition is effective, as the Commission has found to be the case in California, competition is superior to regulation in achieving a socially optimal array of service quality offerings.

⁶³ Jerry Hausman, “Mobile Telephone,” in HANDBOOK OF TELECOMMUNICATIONS ECONOMICS, Vol. 1, ed. Martin E. Cave, Sumit K. Majumdar, and Ingo Vogelsang, (Amsterdam: Elsevier Science B.V., 2002), Chapter 13, pp. 583-588. See, also, *Fine and de Figueiredo 2005*, p. 25; and Jerry A. Hausman, “Valuing the Effect of Regulation on New Services in Telecommunications,” Brookings Papers: Microeconomics, 1997.

⁶⁴ *TURN Opening Comments*, p. 6.

⁶⁵ *TURN Opening Comments*, p. 7.

⁶⁶ *URF Phase 1 Decision*, p. 273.

65. In addition, Professor Harris's comments, which are consistent with my own on this subject, in no way support TURN's position. Rather, TURN misses the point that Dr. Harris was making, which is that competition produces the level(s) of quality that consumers demand, and those may be higher or lower than those that regulators impose. This point applies equally to the example of no-frills airlines. The quality levels that consumers demand trump those that regulators impose because consumers are the best judge of their own preferences. If competition produces "low quality/low price options" then that is because those options make consumers better off in their own eyes, TURN's contrary judgment notwithstanding. As I explained in my opening comments, the success of no-frills airlines following industry deregulation in the 1980s did not lead to unambiguous increases in all dimensions of service quality, but instead provided consumers a wider variety of services, greater frequency of flight options, and lower average prices. Economic research has demonstrated that the overall net benefit to the consumer welfare of these changes were quite impressive, on the order of \$15 billion.⁶⁷

B. Contrary to TURN's Assertion, Competitive Markets Can and Do Function Effectively Without Service Quality Regulations

66. TURN claims that "It is the antithesis of a free market that consumers should be forced to rely solely on the marketing hype of various competitors, especially for an essential product such as communications services."⁶⁸
67. TURN's view, apparently, is that competition cannot work unless the regulator is there to protect consumers from it because the market itself does not provide consumers with sufficient information to make reasonable decisions. This is perverse. First, the premise that customers are "forced to rely solely on the marketing hype of various competitors" is factually incorrect, as has been amply

⁶⁷ Aron Opening Comments, p. 23.

demonstrated by reference to the various third-party information sources available to customers and the opportunity for more to enter if there is sufficient demand. But, moreover, as I have emphasized throughout my opening and this reply comment, markets function across the economy without regulators monitoring and regulating service quality or providing information to consumers. The fact of the matter is that consumers are well-accustomed to assessing marketing messages in our economy and have access to multiple sources of information describing their various alternatives, in addition to information provided by the carriers.

⁶⁸

TURN Opening Comments, p. 6.

Executed in Evanston, Illinois on Friday, June 15, 2007.

/s/ Debra J. Aron

Debra J. Aron

CERTIFICATE OF SERVICE

I hereby certify that: I am over the age of eighteen years and not a party to the within entitled action; my business address is 112 Lakeview Canyon Road, CA501LB, Thousand Oaks, California 91362; I have this day served a copy of the foregoing, **REPLY DECLARATION OF DR. DEBRA J. ARON**
SUPPORTING COMMENTS OF VERIZON CALIFORNIA INC. (U 1002 C) by electronic mail to those who have provided an e-mail address and by U.S. Mail to those who have not, on the service list.

I declare under penalty of perjury that the foregoing is true and correct.
Executed this 15th day of June, 2007 at Thousand Oaks, California.

/s/ Jacque Lopez
JACQUE LOPEZ

CALIFORNIA PUBLIC UTILITIES COMMISSION

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